

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A carbon nanotube-dispersed polyimide saturable absorber excellent in an optical quality, obtainable by mixing a carbon nanotube dispersion liquid comprising a carbon nanotube, an amide-based polar organic solvent, and a nonionic surfactant and/or a polyvinylpyrrolidone (PVP) with a mixture solution of a solvent soluble polyimide and an organic solvent.

2. (original) The saturable absorber according to claim 1, wherein the carbon nanotube is a single-walled carbon nanotube.

3. (previously provided) The saturable absorber according to claim 1, where the amide-based polar organic solvent comprises N-methylpyrrolidone (NMP) and/or dimethylacetamide.

4. (previously provided) The saturable absorber according to claim 1, where the nonionic surfactant is a polyoxyethylene surfactant.

5. (previously provided) The saturable absorber according to claim 1, where the content of the nonionic surfactant is 0.005 to 5% by weight in the carbon nanotube dispersion liquid.

6. (previously provided) The saturable absorber according to claim 1, where the content of the polyvinylpyrrolidone (PVP) is 0.1 to 10% by weight in the carbon nanotube dispersion liquid.

7. (currently amended) A method for producing a carbon nanotube-dispersed polyimide saturable absorber, obtained by a method comprising the steps of:

mixing a carbon nanotube dispersion liquid comprising a carbon nanotube, an amide-based polar organic solvent, and a nonionic surfactant and/or a polyvinylpyrrolidone (PVP) with a mixture solution of a solvent soluble polyimide and an organic solvent; and

removing the solvent.

8. (previously provided) A method for producing a saturable absorber, comprising the steps of:

dispersing a single-walled carbon nanotube in a mixture solution of an amide-based polar organic solvent and a nonionic surfactant under intensive stirring;

mixing the resultant dispersion liquid with a polyimide mixed organic solvent; and

removing the solvent.

9. (previously provided) The method for producing a saturable absorber according to claim 7, the obtained single-walled carbon nanotube dispersion liquid is treated with a filter having a retaining particle size of 0.1 to 3.0 μm to obtain a dispersion liquid comprising fine particles of the single-walled carbon nanotube.

10. (previously provided) A method for producing a saturable absorber, comprising the steps of:

dispersing a single-walled carbon nanotube in a mixture solution of an amide-based polar organic solvent and a nonionic surfactant under intensive stirring;

mixing a polyvinylpyrrolidone (PVP) therewith;

mixing the resultant dispersion liquid with a polyimide mixed organic solvent, and

removing the solvent.